CLAIMS

1. (Currently Amended) A universal programmer or interrogator for communications with various types of implantable devices (IMDs) from different manufacturers including a digital signal processing (DSP) circuit, comprising:

means for receiving a data signal from any one of the IMDs; and

means for modulating said data signal consistent with one of a distinct modulation mode specific to one of the IMDs, wherein the means for modulating are contained within a motor controller DSP chip.

2. (Original) The universal programmer of claim 1 further comprising:

an antenna system;

a receiver in operable communication with the antenna for receiving and amplifying of said data signal; and

a transmitter for transmitting a data signal to said one of the IMDs.

3. (Original) The universal programmer of claim 1 wherein said DSP circuit includes means for conserving battery life.

4. (Currently Amended) A multi-mode programmer in proximal and remote data signal communication link with various types of medical devices and remote monitors from different manufacturers comprising:

a single chip DSP circuit;

a transceiver in operable electrical communication with the circuit; and

means for modulating the data signal consistent with one of ~~and the~~ combinations of ~~the~~ a modulation scheme of the medical devices and the remote monitor wherein said means for modulating ~~includes an operable electrical communication with the circuit~~is within the single chip DSP circuit.

5. (Original) The programmer of claim 4 wherein said medical devices include one of implantable devices and externally mounted devices.

6. (Original) The programmer of claim 4 wherein said remote monitor includes a bi-directional communication network with a hospital or clinic for long distance remote patient monitoring.

7. (Original) The programmer of claim 4 wherein said transceiver includes an antenna adapted for both far-field and near-field telemetry.

8. (Original) The programmer of claim 4 wherein said DSP circuit includes a DSP chip fully static with low power modes forming an operable electrical system in combination with support circuitry.

9. (Original) The programmer of claim 8 wherein said support circuitry includes an antenna scheme having a first and second antenna disposed concentric one with the other.

10. (Original) The programmer of claim 9 wherein said first and second antennas are co-planar.

11. (Original) The programmer of claim 4 wherein said transceiver includes means for real-time test, means for signature evaluation and means for operating various Rx/demodulation to detect and identify the type of medical device being interrogated.

12. (Original) The programmer of claim 11 wherein the programmer is one of a patch, a belt-worn pager, PDA play-in module, a laptop plug-in module, a pendant and a watch.

13. (Currently Amended) The programmer of claim 4 wherein the communication link ~~includes~~ is selected from the group consisting of: RF, IrDA, and ultra sound.

14. (Original) The programmer of claim 4 wherein the DSP circuit includes means for reducing power requirements.

15. (Original) The programmer of claim 7 wherein said antenna includes means for battery recharge input.

16. (Original) The programmer of claim 4 wherein the communication link includes an internet connection via a transponder.